



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,280	08/17/2001	Jonas Ohlsson	2380-486	1170
23117 7590 02/25/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER GARY, ERIKA A	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 02/25/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/931,280

Applicant(s)

OHLSSON ET AL.

Examiner

Erika A. Gary

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 6-9, 12 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 6-9, 12, 14-18, 20, 22-23 is/are rejected.
- 7) ☒ Claim(s) 19 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 4, 6-8, 12, and 14-23 are objected to because of the following informalities: they all include dependency upon cancelled claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6, 7, 9, 14, 15, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willey (US 5,920,550) in view of Tiedemann, Jr. et al (US 6,246,673).

Regarding claims 1 and 9, Willey discloses a base station eventually receives a first one of the access probes and thus the Access Channel Message. The infrastructure begins to allocate the Active Set channels, by creating a first Active Set according to the first set of measured pilot strengths, and begins setting up resources to handle the call (see column 5, lines 11-40), which reads on the claimed, "for use in a telecommunications system having a source base station and a destination base station where a specified mobile station establishes a connection with the source base station, a method comprising: upon receipt of a first measurement report from the specified mobile station, initiating...a preliminary portion of a handover sequence for the specified mobile station," wherein the Access Channel Message reads on the first measurement

report and creating a first Active Set. In some situations the radiotelephone may transmit another access probe before it receives the acknowledgement of receipt of the Access Channel Message. Accordingly, base station 102 will receive another Access Channel Message, referred to as the second Access Channel Message, which specifies more current pilot strength measurements than those in the first Access Channel Message (see column 5, lines 23-40), which reads on the claimed, "upon receipt of a second measurement report from the specified mobile station," and, "wherein the first measurement report from the specified mobile station and the second measurement report from the specified mobile station include differing values of a signal quality measurement of a pilot signal from the destination base station as received by the specified mobile station." When a different Active Set is not necessary, the method ends, but when a different active set is necessary, the base station waits until the subscriber unit is acquired on the Reverse Traffic Channel and allocates the Active Set Channels, by creating a second Active Set according to the second set of measured pilot strengths (see column 5, lines 41-56), which reads on the claimed, "initiating at the destination base station another portion of a handover sequence for the specified mobile station." Willey fails to disclose the preliminary portion of the handover sequence includes uplink radio synchronization with respect to the specified mobile station and occurs at the destination base station.

In a Similar field of endeavor, Tiedemann, Jr. et al disclose a pilot strength measurement report triggers the target base station to fix timing error between it and the mobile station in the forward link (see column 17, lines 28-49).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Tiedemann, Jr. et al to include the above fixing the timing error in the preliminary portion of the handover sequence in order to provide a faster transition as suggested by Tiedemann, Jr. et al (see column 7, lines 34-49).

Regarding claims 6 and 14, Willey fails to disclose the preliminary portion of the handover sequence includes uplink radio Synchronization with respect to the specified mobile station.

In a similar field of endeavor, Tiedemann, Jr. et al disclose a pilot strength measurement report triggers the target base station to fix timing error between it and the mobile station in the forward link (see column 17, lines 28-49).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Tiedemann, Jr. et al to include the above fixing the timing error in the preliminary portion of the handover sequence in order to provide a faster transition as suggested by Tiedemann, Jr. et al (see column 7, lines 34-49).

Regarding claims 7 and 15, the combination of Willey and Tiedemann, Jr et al discloses a base station eventually receives a first one of the access probes and thus the Access Channel Message. The infrastructure begins to allocate the Active Set channels, by creating a first Active Set according to the first set of measured pilot strengths, and begins setting up resources to handle the call (see column 5, lines 11-40). In some situations the radiotelephone may transmit another access probe before it receives the acknowledgement of receipt of the Access Channel Message. Accordingly, base station 102 will receive another Access Channel Message, referred to as the

second Access Channel Message, which specifies more current pilot strength measurements than those in the first Access Channel Message (see column 5, lines 23-40). When a different Active Set is not necessary, the method ends, but when a different active set is necessary, the base station waits until the subscriber unit is acquired on the Reverse Traffic Channel and allocates the Active Set Channels, by creating a second Active Set according to the second set of measured pilot strengths (see column 5, lines 41-56), which reads on the claimed, "the another portion of the handover sequence comprises remaining events of a conventional handover sequence which were not included in the preliminary portion of the handover sequence," wherein one of ordinary skill in the art would recognize that when a method is divided into two portions, the second portion would contain the remaining events not included in the preliminary portion.

Regarding claims 22 and 23, the combination of Willey and Tiedemann, Jr et al discloses a base station eventually receives a first one of the access probes and thus the Access Channel Message. The infrastructure begins to allocate the Active Set channels, by creating a first Active Set according to the first set of measured pilot strengths, and begins setting up resources to handle the call (see column 5, lines 11-40). In some situations the radiotelephone may transmit another access probe before it receives the acknowledgement of receipt of the Access Channel Message. Accordingly, base station 102 will receive another Access Channel Message, referred to as the second Access Channel Message, which specifies more current pilot strength measurements than those in the first Access Channel Message (see column 5, lines 23-

40). When a different Active Set is not necessary, the method ends, but when a different active set is necessary, the base station waits until the subscriber unit is acquired on the Reverse Traffic Channel and allocates the Active Set Channels, by creating a second Active Set according to the second set of measured pilot strengths (see column 5, lines 41-56), which reads on the claimed, "upon receipt of the first measurement report from the specified mobile station, initiating...the preliminary portion of the handover sequence for establishing a connection leg between the destination base station and the specified mobile station; and, upon receipt of the second measurement report from the specified mobile station, initiating at the destination base station the another portion of the handover sequence for establishing the connection leg between the destination base station and the specified mobile station." Willey fails to disclose the preliminary portion of the handover sequence occurs at the destination base station.

In a similar field of endeavor, Tiedemann, Jr. et al disclose a pilot strength measurement report triggers the target base station to fix timing error between it and the mobile station in the forward link (see column 17, lines 28-49).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Willey with Tiedemann, Jr. et al to include the above fixing the timing error in the preliminary portion of the handover sequence in order to provide a faster transition as suggested by Tiedmann, Jr. et al (see column 7, lines 34-49).

4. Claims 4, 8, 12, 16-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willey in view of Tiedemann, Jr et al as applied to claims 1 and 9 above, and further in view of Muszynski (US 6,009,328).

Regarding claims 4 and 12, the combination of Willey and Tiedemann, Jr et al fails to expressly disclose upon receipt of the first measurement report from the specified mobile station, a control node allocates uplink resources for the specified mobile station to communicate with the destination base station.

In a similar field of endeavor, Muszynski discloses that BS 22 will further start demodulating the CDMA uplink connection after the first PSMM (see column 9, lines 16-45), which reads on the claimed, "upon receipt of the first measurement report from the specified mobile station, a control node allocates uplink resources for the specified mobile station to communicate with the destination base station."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Tiedemann, Jr et al with Muszynski to include the above demodulation of the CDMA uplink after the first PSMM in order to provide seamless soft handoff throughout the service area of a whole cellular telecommunications system.

Regarding claims 8 and 16, the combination of Willey and Tiedemann, Jr et al fails to disclose the another portion of the handover sequence comprises transferring user data between the control node and the destination base station.

In a similar field of endeavor, Muszynski discloses upon termination of the soft handover the MSC sends a termination message via the base stations to the MS and

signal diversity combining is stopped (see column 10, lines 6-54), which reads on the claimed, "the another portion of the handover sequence comprises...transferring user data between the control node and the destination base station," wherein the termination message would need to include identifying information of the terminal, which reads on the claimed, "user data."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Tiedemann, Jr et al with Muszynski to include the above demodulation of the CDMA uplink after the first PSMM in order to provide seamless soft handoff throughout the service area of a whole cellular telecommunications system.

Regarding claim 17, the combination of Willey and Tiedemann, Jr et al fails to disclose the control node is a RNC.

In a similar field of endeavor, Muszynski discloses that the control node is a MSC (see figure 1), which reads on the claimed, "the control node is a radio network control node of a radio access network.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Tiedemann, Jr et al with Muszynski to include the above demodulation of the CDMA uplink after the first PSMM in order to provide seamless soft handoff throughout the service area of a whole cellular telecommunications system.

Regarding claims 18 and 20, the combination of Willey and Tiedemann, Jr et al, as applied to claims 1 and 9 , discloses a pilot strength measurement report triggers the

target base station to fix timing error between it and the mobile station in the forward link (see Tiedemann, Jr et al column 17, lines 28-49). The combination of Willey and Tiedemann, Jr et al fails to disclose the preliminary portion of the handover sequence comprises sending an uplink setup request message from a control node to the destination base station, turning on a receiver at the destination base station to listen to the specified mobile station and the destination base station, and sending a mobile station detected message from the destination base station to the control node.

In a similar field of endeavor, Muszynski discloses the handoff begins with the MS sending signal quality measurements indicating that a soft handoff is appropriate. The MSC passes an inter-MSC soft handoff request to the second MSC, which passes this handoff request further on to the BS (see column 9, lines 10-59), which reads on the claimed, "sending an uplink setup request message from a control node to the destination base station." The BSA will further start demodulating the CDMA uplink connection (see column 9, lines 10-59), which reads on the claimed, "turning on a receiver at the destination base station to listen to the specified mobile station and the destination base station." The BS will start relaying the user communication signals back to the MSC (see Muszynski column 9, lines 10-59), which reads on the claimed, "sending a mobile station detected message from the destination base station to the control node."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Willey and Tiedemann, Jr et al with Muszynski to include the above demodulation of the CDMA uplink after the first PSMM

in order to provide seamless soft handoff throughout the service area of a whole cellular telecommunications system.

Allowable Subject Matter

5. Claims 19 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed 12/12/07 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the preliminary portion of the handover sequence is followed by another portion of the handover sequence when the need for the handover is definitely determined) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the two measurement reports pertain to soft handover) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant also argues that Willey does not describe handover activity at a destination base station. However, the Examiner respectfully disagrees as this is a base station in the active set. As broadly claimed, the Examiner maintains that the combination of Willey and Tiedemann teach the limitations of the independent claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 571-272-7841. The examiner can normally be reached on Monday-Thursday.


Application/Control Number:
09/931,280
Art Unit: 2617

Page 12

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EAG
February 18, 2008


ERIKA A. GARY
PRIMARY EXAMINER